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**ZONORCHIS MEYERI, NEW SPECIES, A
PARASITE OF THE GALL BLADDER OF A
RAIL IN THE GALÁPAGOS ISLANDS
(TREMATODA: DICROCOELIIDAE)¹**

By

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During the expedition of the Galápagos International Scientific Project of January, 1964, which was sponsored by the Charles Darwin Foundation, organized by the University of California, and supported by the National Science Foundation, the California Academy of Sciences, the Belvedere Scientific Fund, and the Shell Oil Company, the gallbladder of a rail (*Laterallus jamaicensis* Gmelin), was found to be infested by a worm belonging to the genus *Zonorchis*.

The single specimen collected is unfortunately a juvenile, but characters are sufficiently differentiated to allow a proper identification of a new species, here named *Zonorchis meyeri*. This species is respectfully dedicated to Professor Karl F. Meyer, Director Emeritus of the G. W. Hooper Foundation (University of California Medical Center, San Francisco).

Zonorchis meyeri Vercammen-Grandjean, new species.

A. DIAGNOSIS. Lanceolate body, diameter of acetabulum twice that of oral suckers; coeca slender and torose, three-quarters as long as the body; elongate cylindrical cirrus pouch with oval seminal vesicle; multilobate testes; pyriform ovary; vitellagenous follicles distributed laterally through one-third of the body length.

¹ This study was supported by P.H.S. Research Grant AI-03793-03 from the National Institute of Allergy and Infectious Disease, U. S. Public Health Service.

- B. HOST AND PARASITOPH. *Laterallus jamaicensis*; gallbladder.
 C. LOCALITY AND DATE. Galápagos Islands, Ecuador; January 24, 1964.
 D. DESCRIPTION.

1) *Measurements*: in micra, of the holotype, a unique specimen.

Body		Oral sucker	Acetabulum	Pharynx	Ovary	Testes	Cirrus		Vit.	Bladder	
length	width	Ø	Ø	Ø	l	w	l	Ø	l	l	
1830	530	190	425	100	55	50	65	145	44	760	475

2) *Morphology*: Body lanceolate; the cuticle is glabrous and shows a considerable number of very small pseudopapillae (Ø 8 μ) (fig. 1). The more or less sharply pointed posterior end of the body is terminated by a small cuticular thickening in the form of a cap. Diameter of oral sucker less than half that of the acetabulum; oral region provided with conspicuous papillae distributed in a regular pattern (fig. 2: anterointernal group of two papillae—one larger, at 9 o'clock; fig. 3: anteroexternal papillae at 10 o'clock; fig. 4: posteroexternal papillae at 6 o'clock). Pharynx spherical, no esophagus; coeca divided, immediately after the pharynx, into two long, slender, torose tubes reaching the posterior third of the excretory bladder.

Genital system:

a) *Male*: (fig. 5) Two more or less multilobate testes, the left placed slightly more forward. Each is somewhat larger in diameter than the ovary. The *vasa deferentia* are united near the cirrus pouch into a single, short vessel. The cirrus pouch is elongate and regularly cylindrical, three times as long as broad. Oval seminal vesicle (44 μ long by 26 μ in diameter) opening to a serpentine prostatic and penial vessel. Following this, is an oval atrium opening to the genital pore (sphincter).

b) *Female*: (fig. 6) Ovary pyriform, delivering its oocytes to the conic oviduct and thence to a somewhat inflated insemination chamber into which opens, on one side, the *receptaculum seminalis*, and from which proceeds, on the other side, Laurer's canal. The oviduct then continues and arrives in the ootype, surrounded by the Mehlis' glands. The short, united vitellagenous duct opens into the ootype. The immature eggs are then propelled through the long uterus, in which they undergo slow maturation. The uterus proceeds backwards in numerous convolutions, the last of which is near the end of the excretory bladder; it then returns forward in other numerous convolutions and opens into the genital atrium.

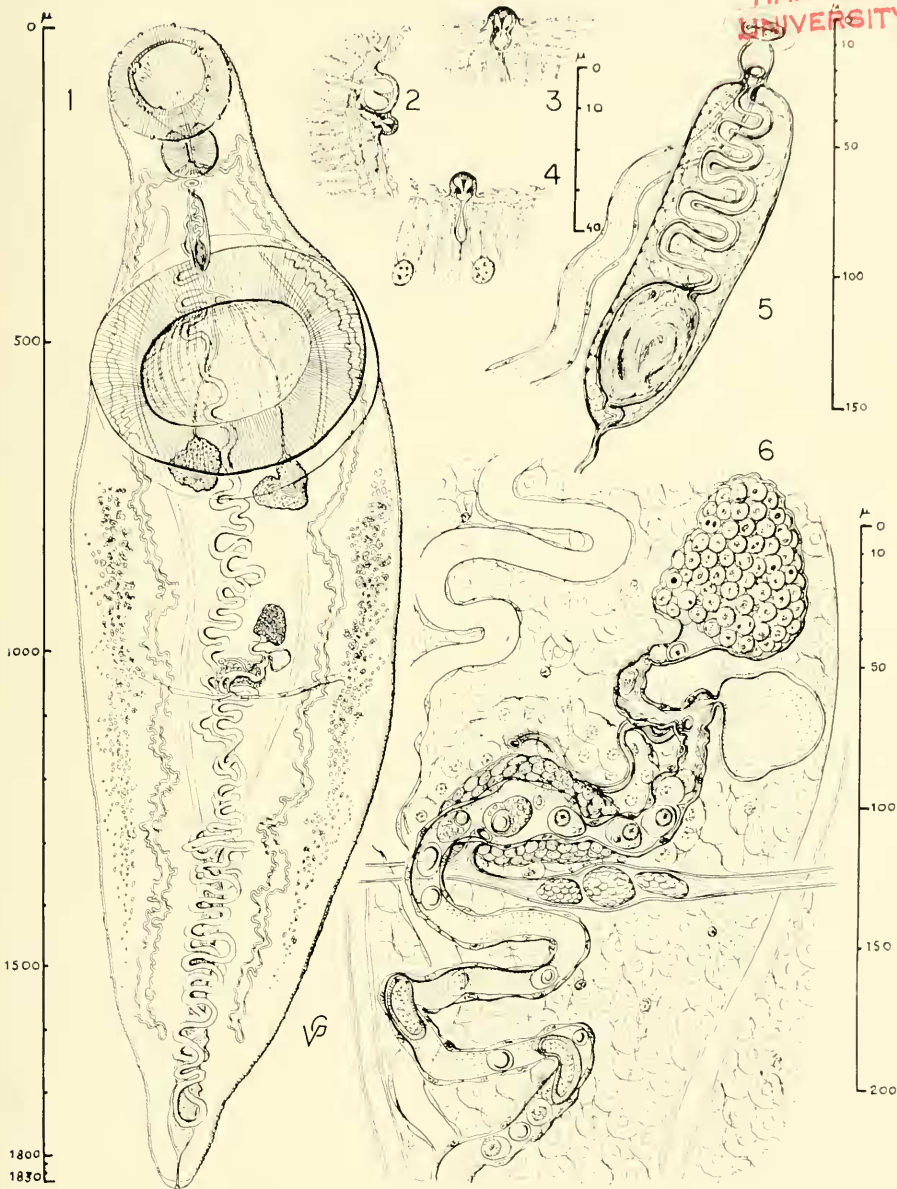
In the present immature specimen, only two eggs are to be seen. They are probably unfertilized, the *receptaculum seminalis* being empty.

Of the two vitellagenous ducts, only the right one contains some vitelline follicles.

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ZONORCHIS MEYERI, n.sp.



Zonorchis meyeri, new species. Fig. 1, entire female.

FIGURES 2, 3, 4, anteromedian, anteroexternal, and posteroexternal papillae on oral sucker. Fig. 5, testis. Fig. 6, ovary.

The entire female genital tract is displayed under ideal conditions because of the absence of eggs, which generally impair vision in mature worms, so that Laurer's canal is apparent to its dorsal aperture.

Excretory system:

Two long, slender and straight vessels converging into a long, large and somewhat torose bladder and forming a typical "Y." The bladder connects to the terminal excretory pore through a narrow tubule 60 μ long.

E. TYPE MATERIAL. The holotype, a unique specimen, is deposited in the George Williams Hooper Foundation, University of California Medical Center, San Francisco 22, California.

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